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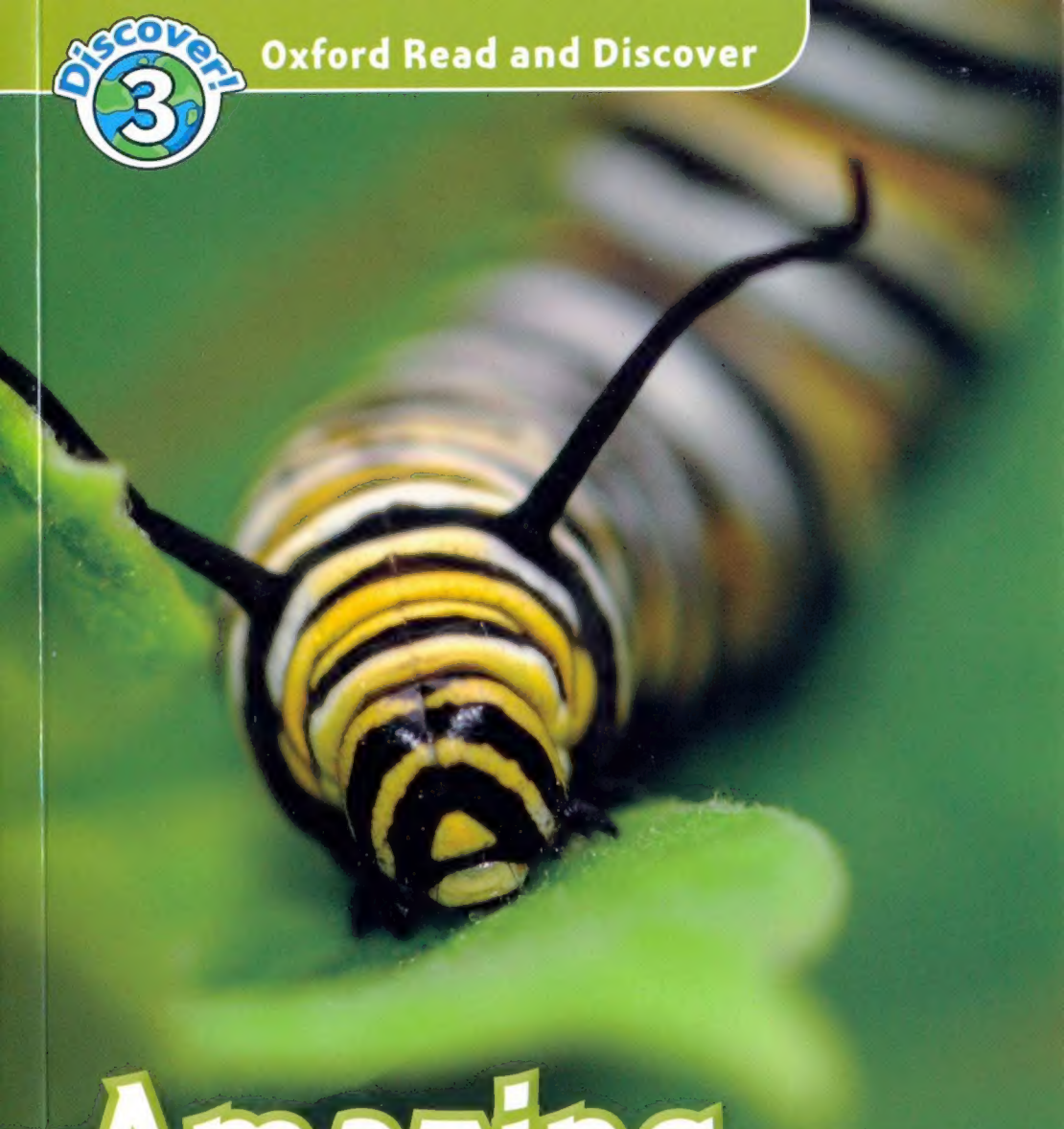

Amazing Minibeasts

Oxford Read and Discover

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Cheryl Palin

Contents

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Introduction

spider

There are millions of different types of minibeast. They can be many different shapes and sizes. Some are very small, some are colorful, and some have lots of legs. They live in different places all over the world!

bee

scorpion

butterfly

What minibeasts do you know?
How many legs does a butterfly have?
How many eyes does a spider have?
Which minibeast has a home on its back?

snail

Discover!

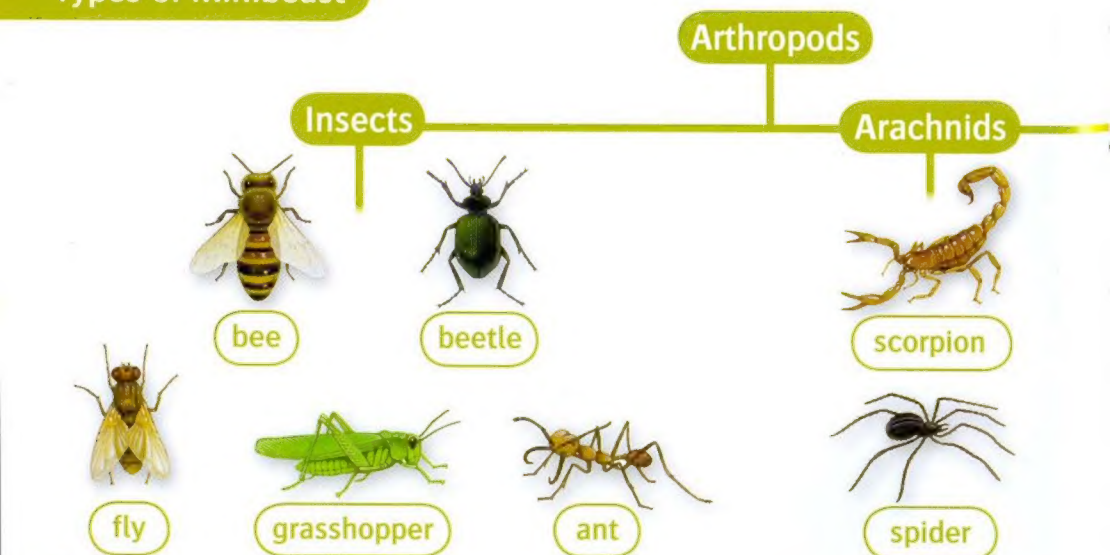
Now read and discover more about amazing minibeasts!

1 Minibeasts

A minibeast is a small animal with no backbone. It's an invertebrate. There are many different types of minibeast. Scientists put them into different groups.

The biggest group is the arthropods. Arthropods have six or more legs. Some arthropods are insects. Insects have six legs. There are more than one million types of insect. Some examples are bees, beetles, ants, flies, and grasshoppers.

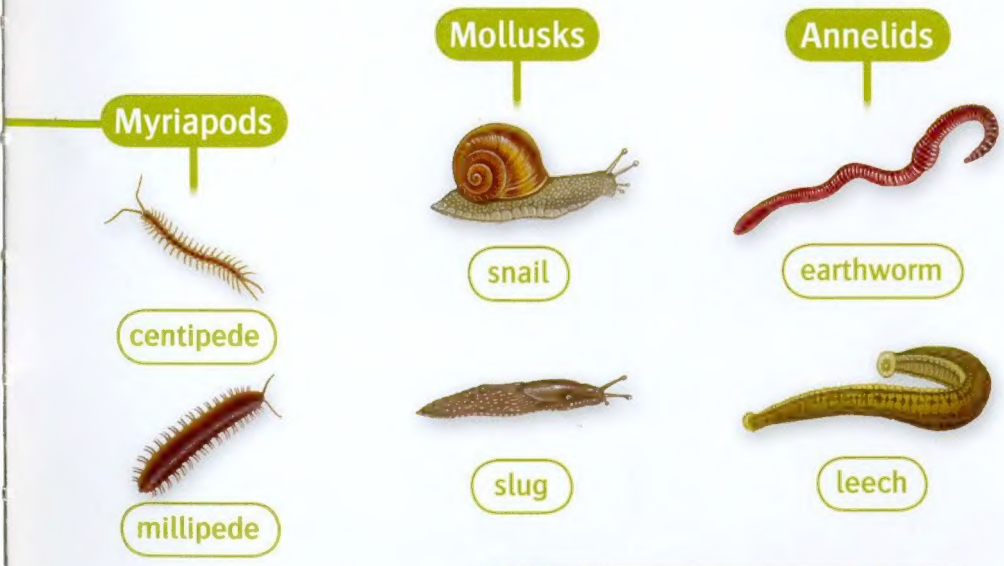
Types of Minibeast



Some arthropods are arachnids. Arachnids have eight legs. Scorpions and spiders are arachnids.

Some arthropods are myriapods. They have lots of legs. Centipedes and millipedes are myriapods. Centipedes have two legs on each body section. Millipedes have four legs on each body section.

Some minibeasts don't have legs. Snails and slugs don't have legs. They are mollusks. Earthworms and leeches don't have legs. Their bodies have lots of sections. They are annelids. Which minibeasts do you know?

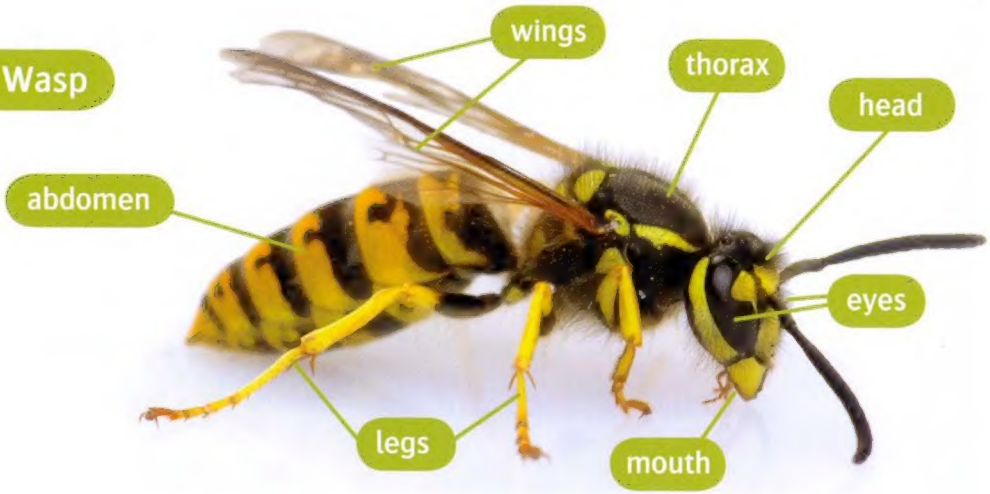


Go to pages 24–25 for activities.

2 Insect Bodies

Most insect bodies have three parts: a head, a thorax, and an abdomen. The head has eyes and a mouth. The thorax has legs and wings.

A Wasp



Insects don't have any bones, but they have a hard cover. This hard cover is called an exoskeleton. Insects grow, but their exoskeleton can't grow. When an exoskeleton is too small, it comes off. Then the insect grows a new, bigger exoskeleton.

Insects can use their bodies to hide from birds and other animals. They don't want the other animals to eat them. This is called camouflage.

A Camouflaged Leaf Insect

Discover!

Some insects have bright colors. Animals don't eat any insect that is black, white, and red. It isn't usually good to eat. Sometimes it's poisonous.

Go to pages 26–27 for activities.

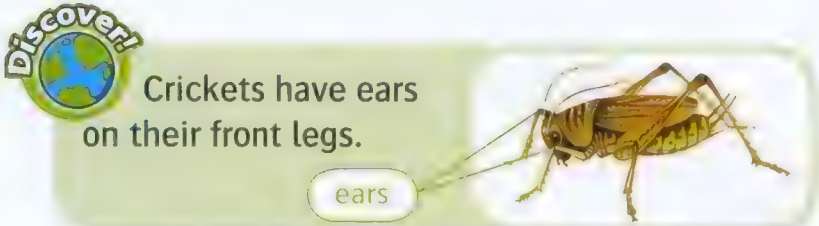
3 Insect Senses

Most insects have two very big eyes. They can't see clearly, but they can see things move very well. Some insects have extra eyes that can only see light and dark.

Some minibeasts have antennae on their head. They use their antennae to feel and touch things. They can also smell food and other minibeasts with their antennae.

Butterflies have a very long tongue called a proboscis. They use their tongue to taste and drink nectar in flowers. Butterflies can also taste with their feet!

Most insects don't have ears on their head. Do you know where they are? They have ears on their body or their legs!



Go to pages 28–29 for activities.

4 Communication

Most male and female minibeasts communicate with each other because they need to make new, baby minibeasts!

Some minibeasts communicate with sound. Grasshoppers can sing. They move their legs up and down to make a singing sound.

Some minibeasts communicate with smell. The female moth makes strong smells called pheromones. The male moth can smell the female with its antennae.

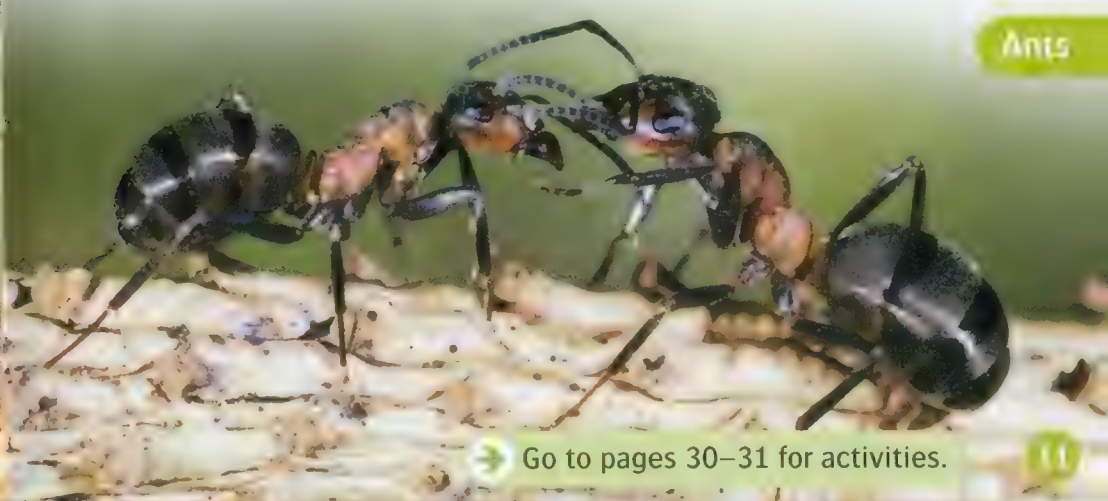
Discover!

The male emperor moth can smell a female 10 kilometers away!


Fireflies at Night

Some minibeasts communicate with light. Fireflies can make light with their abdomen. Male and female fireflies flash their lights to each other.

Some minibeasts communicate to give each other information. Bees dance to tell other bees where there is food. Ants touch each other's antennae or head to give information about food or danger.


Ants

Go to pages 30–31 for activities.

5 Baby Minibeasts

Most baby minibeasts come from eggs. Some minibeasts, like slugs and earthworms, lay their eggs in soil. Other minibeasts, like butterflies and beetles, lay their eggs on plants.

Scorpions don't lay eggs. They have live babies. The baby scorpions travel on their mother's back.

A Female Scorpion and Babies

The babies of some flying insects look like their parents, but they don't have any wings. Baby grasshoppers don't have any wings. They grow wings when they get bigger.

Some babies are larvae. Beetle, butterfly, and bee babies are larvae. After a few weeks, they become pupae. Then they become insects with wings, like their parents.

The Life Cycle of a Butterfly

Go to pages 32–33 for activities.

6 Working Insects

Some insects work together in groups. Leafcutter ants work together. First they find leaves. They carry the leaves to their nest. Fungus grows from the leaves, and then the ants eat the fungus.

Leafcutter Ants

Discover!

Leafcutter ants are very strong. They can carry leaves that are about 50 times heavier than their bodies!

Honeybees work together, too. One queen bee lays all the eggs. Then the female worker bees care for the bee larvae. They look for food, they make honey from nectar, and they give honey to the bee larvae. They keep the honey in honeycombs inside the hive. The worker bees also clean the hive.

Go to pages 34–35 for activities.

7 Minibeast Homes

A Dragonfly

Some minibeasts, like earthworms and ants, live underground, and others live in water. Dragonflies lay their eggs on leaves in the water. Their larvae live underwater.

A Snail

Snails carry their home on their back. They live in many different places. Land snails live in deserts, mountains, forests, and gardens. Marine snails live in the ocean.

Lots of minibeasts make nests. Some wasps make nests from wasp paper. They make the paper from wood and saliva. The queen wasp lays eggs in the nest. The nest has lots of small rooms for the wasp larvae. Wasps attack other animals to protect their nest.

A Wasp Nest

Discover!

A wasp nest can have about 10,000 wasps inside!

Go to pages 36–37 for activities.

8 Spiders

Spiders have two body parts and eight legs. They have six or eight eyes.

All spiders can make silk. Some spiders use the silk to make webs. Insects fly into the web. Then the spider eats the insects.

Some spiders hunt. The wolf spider hides in leaves. Then it jumps out and catches insects, mice, and frogs.

A Wolf Spider

A spider can only eat liquid food. It bites an animal with a poison that makes the animal liquid inside. Then the spider drinks the liquid.

Female spiders are often much bigger than male spiders.

A Spider Eating an Insect in a Web

Discover!

The Golden Orb female spider can have a body up to ten times bigger than the male!

Go to pages 38–39 for activities.

Problems with Minibeasts

Some minibeasts can sting. The part that can sting is called a stinger. A wasp and an ant can sting again and again. A bee can only sting once. Then it dies.

A Conga Ant

Other minibeasts can bite. Some spiders have a poisonous bite, and other animals can die from this poison. A person can die from the bite of a black widow spider.

A Mosquito Biting a Person

Discover!

Only female mosquitoes bite.

Minibeasts can also make people sick. They can bite people and give them diseases. Mosquitoes can give people a very bad disease called malaria.

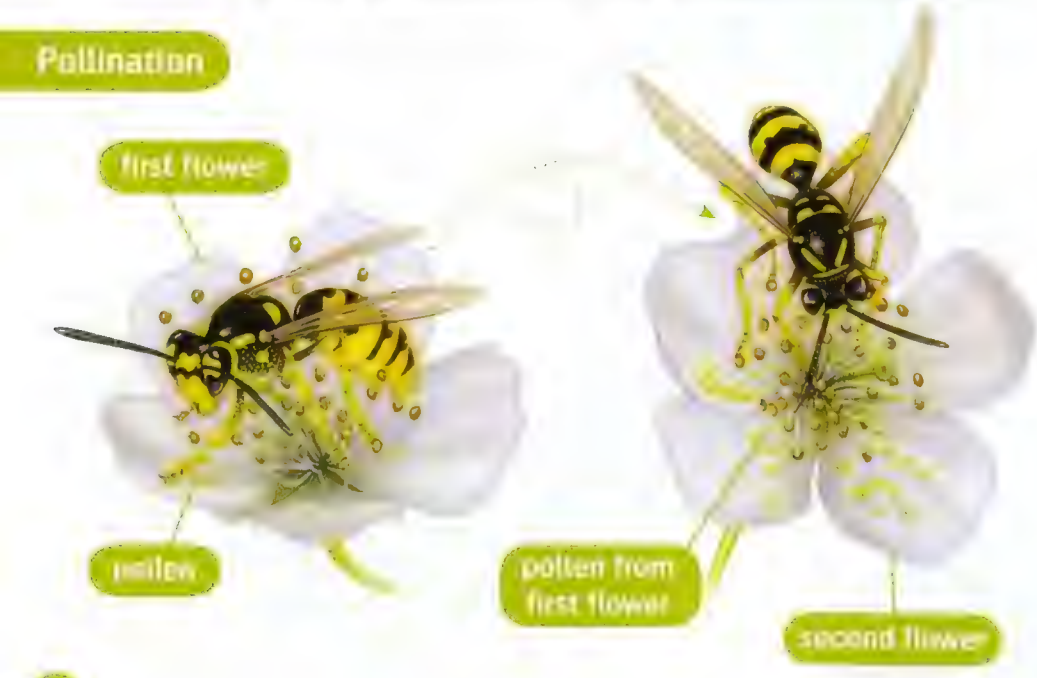
Some minibeasts make problems for farmers. Locusts are a type of grasshopper. They eat a lot of food crops. Other minibeasts make problems in our homes. Some moths eat clothes, and some beetles eat wood.

Go to pages 40–41 for activities.

10 Useful Minibeasts

Minibeasts are important food for many other animals. Fish, frogs, bats, and birds eat minibeasts.

Insects help plants grow. Insects visit different flowers to collect food. The pollen from one flower sticks to the body of the insect. When the insect goes to another flower, the pollen falls onto this flower. The flower uses this pollen to make seeds. Then a new plant grows. This is called pollination.



Earthworms help soil and plants. When they move through the soil, they let air and water in. Plant roots need the air and water.

Bees give us honey and silkworms give us silk. Silkworms make silk cocoons when they become pupae. People use silkworm cocoons to make silk fabric.

Minibeasts are amazing. They are also very useful! People, animals, and plants all need minibeasts to live.

Go to pages 42–43 for activities.

1 Minibeasts

Read pages 4–5.

1 Complete the chart.

leech ~~grasshopper~~ millipede fly centipede snail bee ant spider slug earthworm beetle scorpion

2 Match. Then write the words.

1 It has six legs. It has wings.
It's black and yellow.
It's an insect.

2 It has eight legs. It has a tail.
It's an arachnid.

3 It doesn't have legs.
It has a shell. It's a mollusc.

4 It doesn't have legs.
It doesn't have a shell.
It's an annelid.

_____

_____

bee

_____

3 Draw and write about two minibeasts.

This is a _____

It has _____

It has _____

It's _____

It's _____

_____

_____

_____

_____

_____

2 Insect Bodies

Read pages 6–7.

1 Write the words.

~~head~~
thorax
abdomen
leg
wing

1 head
2 _____
3 _____
4 _____
5 _____

2 Complete the sentences.

cover small new ~~bones~~ grow

Insects don't have any bones. They have a hard _____ called an exoskeleton. Insects _____, but their exoskeletons can't grow. When an exoskeleton is too _____, it comes off. Then the insect grows a _____, bigger exoskeleton.

3 Circle the correct words.

1 Insects **can** / **can't** use their body to hide.

2 Insects **want** / **don't want** other animals to eat them.

3 **Some** / **All** insect bodies are camouflaged.

4 An insect that is black, white, and red **is** / **isn't** good to eat.

5 Insects are **sometimes** / **never** poisonous.

6 An exoskeleton **can** / **can't** grow.

4 Answer the questions.

1 What color are insects that are not good to eat?

They are black, white, and red.

2 How many parts do most insects have?

_____

3 What are the names of the insect parts?

_____

4 What happens when an exoskeleton is too small?

_____

5 How do insects hide from other animals?

_____

3 Insect Senses

Read pages 8–9.

1 Write *true* or *false*.

1 All insects have only two eyes. false

2 Some insects have more than two eyes. _____

3 Insects can see very clearly. _____

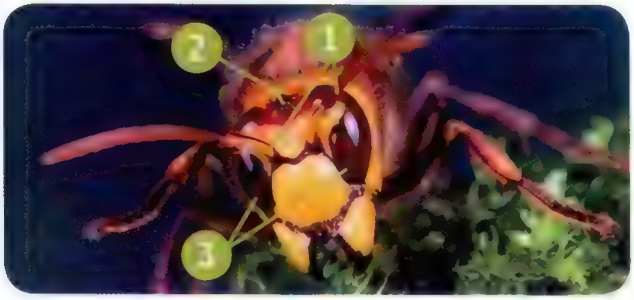
4 Insects can see things move. _____

5 All insects see light and dark. _____

6 Most insects have ears on their head. _____

2 Write the sentences.

These are antennae.
These eyes can see things move.
These eyes can see light and dark.



1 _____

2 _____

3 _____

3 Write *People*, *Insects*, or *People and insects*.

1 Insects smell with their antennae.

2 _____ touch with their antennae.

3 _____ touch with their hands.

4 _____ taste with their feet.

5 _____ hear with their legs.

6 _____ see with their eyes.

4 Draw and write about two insects.

This is a _____

It has _____

It can _____

_____

It can _____

_____

_____

_____

_____

_____

_____

_____

4 Communication

Read pages 10–11.

1 Find and write the minibeasts. Then draw them.

1 moths

2 _____

3 _____

4 _____

5 _____

s	o	s	t	m	o	t	h	s	a	n	f
i	r	e	i	o	s	h	b	a	r	i	i
t	i	a	n	t	s	n	e	g	e	b	r
e	f	d	s	j	e	e	e	u	m	e	e
n	r	a	p	p	l	s	s	r	a	g	f
t	o	d	a	s	h	i	p	e	r	b	l
i	h	e	s	b	v	o	i	r	u	l	i
r	i	m	m	l	o	r	z	a	z	o	e
g	r	a	s	s	h	o	p	p	e	r	s

2 Write *male* or *female*.

The _____ moth makes strong smells called pheromones. The _____ moth can smell the _____ moth with its antennae. The _____ emperor moth can smell a _____ moth 10 kilometers away!

3 Find and write the words.

1 touch 2 _____ 3 _____

4 _____ 5 _____ 6 _____

4 Complete the sentences.

Bees Ants Grasshoppers Moths Fireflies

1 _____ communicate with smell.

2 _____ communicate with light.

3 _____ communicate with dance.

4 _____ communicate with sound.

5 _____ communicate with touch.

5 Answer the questions.

1 How do grasshoppers communicate?

_____

2 How do fireflies communicate?

_____

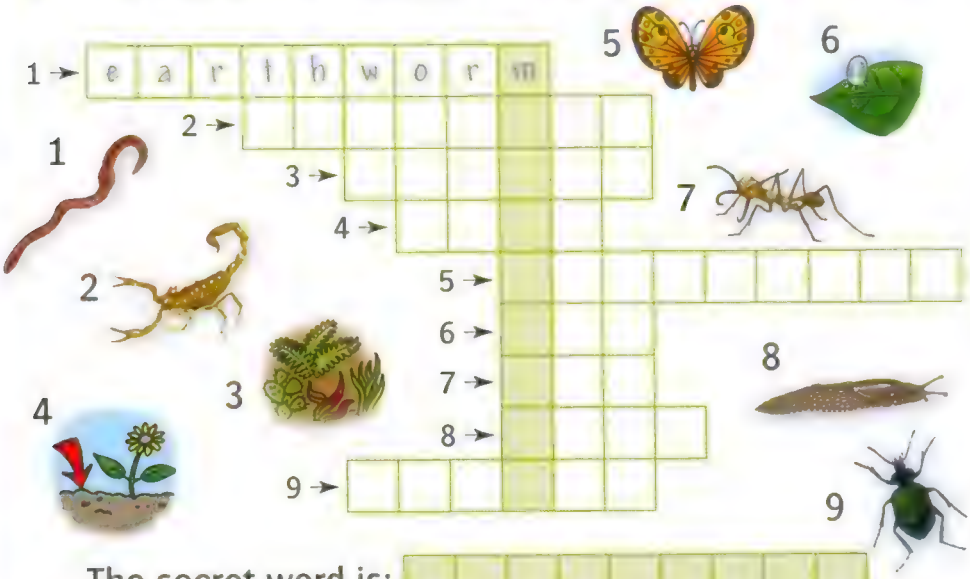
3 How do bees communicate?

_____

5 Baby Minibeasts

Read pages 12–13.

1 Complete the puzzle. Write the secret word.



The secret word is: _____

2 Write ✔ or ✘

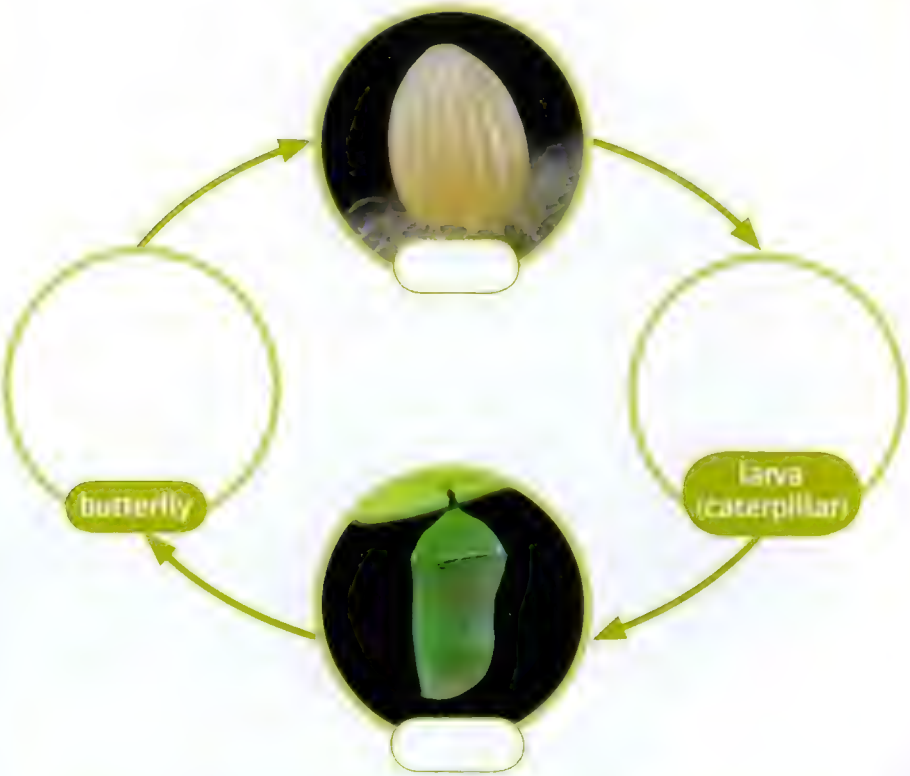
1 Most minibeasts
lay eggs. ✔
have live babies. ✘

2 Slugs and earthworms
lay eggs
in soil. ☐
on plants. ☐

3 Butterflies and
beetles lay eggs
in soil. ☐
on plants. ☐

4 Scorpions
lay eggs. ☐
have live babies. ☐

3 Complete the diagram. Then write about the life cycle of a butterfly.



caterpillar pupa butterfly wings eggs
pupa butterfly caterpillar insect

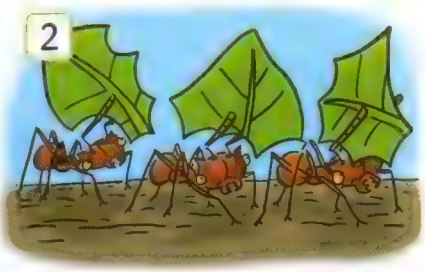
A _____ lays _____. A _____ comes out of an egg. The _____ grows and it becomes a _____. Then a _____ comes out of the _____. Now it's an _____ with _____.

6 Working Insects

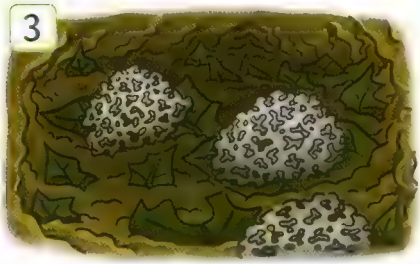
Read pages 14–15.

1 Number the sentences in order. Then write.

- [ ] Fungus grows.
- [ ] They carry the leaves to their nest.
- [1] The leafcutter ants find leaves.
- [ ] They eat the fungus.



The leafcutter ants find leaves.



2 Write *true* or *false*.

1 Two queen bees lay the eggs. _____

2 The workers are male. _____

3 The workers care for the bee larvae. _____

4 Bees make honey from nectar. _____

5 Bees keep the honey in honeycombs. _____

3 Complete the chart.

They live in a hive. They are insects.
They carry leaves. They keep honey in honeycombs.
They make honey. They eat fungus.
They find leaves. They work together in groups.

Leafcutter ants	
Honeybees	
Leafcutter ants and honeybees	

7 Minibeast Homes

Read pages 16–17.

1 Use the code to write the minibeasts. Then write the numbers.

a	d	e	f	g	h	i	l	m	n	o	p	r	s	t	w	y
★	≈	⊙	←	≈	•	•	❖	▪	●	▲	☼	□	▣	◆	✦	O

1

≈	□	★	⇔	▲	●	←	❖	O
d	r	a	g	o	n	f	l	y

2

✦	★	▣	☼

3

⊙	★	□	◆	•	✦	▲	□	▪

4

▣	●	★	☼	❖

5

★	●	◆

2 Write the words.

snail dragonfly ant wasp

1 It's an insect that lives underground. _____

2 Its larvae live underwater. _____

3 It carries its home on its back. _____

4 It makes fantastic nests. _____

3 Complete the sentences.

paper nests queen larvae saliva

1 Lots of minibeasts make _____.

2 Some wasps make nests from _____.

3 Wasps make the paper from wood and _____.

4 The _____ wasp lays eggs in the nest.

5 The wasp nest has lots of small rooms for the wasp _____.

4 Answer the questions.

1 Which minibeasts live underground?

_____

2 Where do dragonflies lay their eggs?

_____

3 Where do wasps live?

_____

8 Spiders

Read pages 18–19.

spider web leaves
poison mice liquid

1 Write the words.

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

2 Write the words in order. Then write *true* or *false*.

1 spiders / silk. / All / make / can

All spiders can make silk. _____

2 webs. / spiders / make / All

_____ _____

3 hunt. / spiders / All

_____ _____

4 spider / makes / a / The / web. / wolf

_____ _____

5 wolf / mice. / The / eats / spider

_____ _____

3 Complete the chart.

	Spiders 	Insects 
How many body parts?		
How many legs?		
How many eyes?		Some have two eyes and some also have extra eyes.
What food do they eat?		
What can they make?		

4 Draw and write about spiders.

Spiders have _____

_____

_____

They can _____

_____

9 Problems with Minibeasts

Read pages 20–21.

1 Write the words.

ant mosquito locust
beetle moth

1 _____ 2 _____ 3 _____

4 _____ 5 _____

2 Circle the correct words.

1 A wasp can sting **again and again** / **only once**.

2 **All** / **Some** spiders have a poisonous bite.

3 A person **can** / **can't** die from the bite of a black widow spider.

4 **Spiders** / **Mosquitoes** give people malaria.

5 **Male** / **Female** mosquitoes bite.

6 Locusts eat **food crops** / **clothes**.

3 Find and write the minibeast.

It doesn't eat food crops.

It doesn't eat clothes.

It doesn't eat furniture.

It doesn't have eight legs.

It doesn't sting and then die.

It's a _____

bee	beetle
spider	locust
mosquito	moth

4 Write about minibeasts that you like and don't like.

I like _____ because_____

_____

_____

I like _____ because_____

_____

_____

I don't like _____ because_____

_____

_____

I don't like _____ because_____

_____

_____

10 Useful Minibeasts

Read pages 22–23.

1 Write the minibeasts and other animals.

g r o f t a b s h i f

1 frog 2 _____ 3 _____

k o r m w i l s t h e r w o r a m e b e

4 _____ 5 _____ 6 _____

2 Match. Then write the sentences.

Fish, frogs, and bats	eat minibeasts.
Silkworms	give us honey.
Earthworms	let air and water into soil.
Bees	give us silk.
Insects	move pollen from flower to flower.

1 Fish, frogs, and bats eat minibeasts.

2 _____

3 _____

4 _____

5 _____

3 Write about minibeasts.

Problems with minibeasts:

They can sting.

Good things about minibeasts:

Bees give us honey.

4 Can you remember? Which minibeast is it?

1 It tastes with its feet. _____

2 They communicate with light. _____

3 It carries its home. _____

4 It makes nests with wood and saliva. _____

5 It eats fungus. _____

6 Its larvae live underwater. _____

7 It carries its baby on its back. _____

8 It has four legs on each section. _____

9 It can only eat liquids. _____

10 It can give people malaria. _____

Project 1 Counting Minibeasts

1 Draw and write the minibeasts that you see in five days.

Days	Minibeasts
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

2 Count the minibeasts. Draw a graph.

3 Display your graph.

Minibeasts in My Country

1 Write the minibeasts that you can see in your country.

Minibeasts in the House

_____

_____

_____

Minibeasts in the Park

_____

_____

_____

Minibeasts in Water

_____

_____

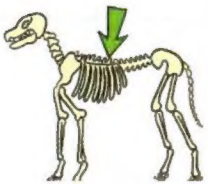
_____

2 Draw ☺ next to the minibeasts that you like.

3 Write about the minibeasts that you like.

4 Display your work.

Picture Dictionary



backbone

bite

bone

clothes

crops

dark

desert

die

female

food

forest

fungus

grow

hide

honey

leaves

liquid

male

mice

mountain

move up and down

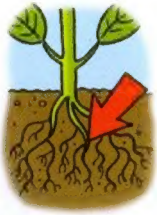
nectar

ocean

parents

plants

poison



roots

saliva

scientist

seeds

silk

smell

soil

sound

sting

taste

tongue

touch

underground

wood

Oxford Read and Discover

Series Editor: Hazel Geatches • CLIL Adviser: John Clegg

Oxford Read and Discover graded readers are at four levels, from 3 to 6, suitable for students from age 8 and older. They cover many topics within three subject areas, and can support English across the curriculum, or Content and Language Integrated Learning (CLIL).

Available for each reader:

- Audio CD Pack (book & audio CD)
- Activity Book

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Subject Area / Level	The World of Science & Technology	The Natural World	The World of Arts & Social Studies
3 600 headwords	• How We Make Products • Sound and Music • Super Structures • Your Five Senses	• Amazing Minibeasts • Animals in the Air • Life in Rainforests • Wonderful Water	• Festivals Around the World • Free Time Around the World
4 750 headwords	• All About Plants • How to Stay Healthy • Machines Then and Now • Why We Recycle	• All About Desert Life • All About Ocean Life • Animals at Night • Incredible Earth	• Animals in Art • Wonders of the Past
5 900 headwords	• Materials to Products • Medicine Then and Now • Transportation Then and Now • Wild Weather	• All About Islands • Animal Life Cycles • Exploring Our World • Great Migrations	• Homes Around the World • Our World in Art
6 1,050 headwords	• Cells and Microbes • Clothes Then and Now • Incredible Energy • Your Amazing Body	• All About Space • Caring for Our Planet • Earth Then and Now • Wonderful Ecosystems	• Helping Around the World • Food Around the World

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Oxford Read and Discover

Amazing Minibeasts

Cheryl Palin

Read and discover all about amazing minibeasts ...

- **How many legs does a spider have?**
- **What is an exoskeleton?**

Read and discover more about the world! This series of non-fiction readers provides interesting and educational content, with activities and project work.

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Audio CD Pack available

Word count for this reader: 1,249

✔ **Level 3** 600 headwords

Level 4 750 headwords

Level 5 900 headwords

Level 6 1,050 headwords

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